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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,313	02/06/2004	Y.S. Fung	V0690.0012/P012	7424

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EXAMINER
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MAYEKAR, KISHOR

ART UNIT	PAPER NUMBER
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1753

MAIL DATE	DELIVERY MODE
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09/19/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/772,313	<b>Applicant(s)</b> FUNG ET AL.	
	<b>Examiner</b> Kishor Mayekar	<b>Art Unit</b> 1753	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>02/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102 and 103*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kerr et al. (US 5,744,531). Kerr's invention is directed to an electrocoating composition. Kerr discloses in example that the composition is an aqueous dispersion with a particle size of 960 nm, pH of 8.44 and conductivity of 890 microsiemens (read as per one centimeter). It has been held that the disclosure in the prior art of any value within the claimed range is an anticipation of that range. And a

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prima facie case of obviousness exists in the case where the claimed range overlaps range disclosed by the prior art, *In re Wertheim* 191 USPQ 90.

Kerr also discloses that an applied voltage can be varied from a low voltage as one volt and typically between 50 to 500 V (col. 12, lines 52-57).

4. Claims 1-6 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Antonelli et al. (US 5,667,894) in view of Harris et al. (US 5,672,432) and/or Uchidoi et al. (US 7094324 B2). Antonelli's invention is directed to a cathodic electrocoating composition containing methane sulfonic acid as a neutralizing agent and a coating method thereof. Antonelli discloses that the composition is an aqueous dispersion having a binder of an epoxy-amine adduct with a binder phase have a particle size preferably of less than 1 micron (col. 4, lines 51-65), and the composition has a pH preferably of about 5.5 to 8 (col. 2, lines 30-36). In Table I, Antonelli further discloses that the particle size of the binder emulsion between 91 nm to 169 nm and the conductivity of the composition is from 1738 to 2540 microsiemens. The shown conductivity can be interpreted as per one centimeter. The difference between Antonelli and the above claims is the overlapping of the recited pH range and the recited conductivity range.

As to the former, it has been held that the disclosure in the prior art of any value within the claimed range is an anticipation of that range. And a prima facie case of

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obviousness exists in the case where the claimed range overlaps range disclosed by the prior art, *In re Wertheim* 191 USPQ 90.

As to the latter, Harris teaches in a cathodic electrocoating composition having a binder of an epoxy-amine adduct that the composition has an electroconductivity from 800 to 3000 micromhos (or microsiemens), see abstract and col. 9, lines 11-19. Antonelli also teaches in a synthesis 4 that the particle size of the binder phase is 45 nm and in synthesis 5 the composition with a pH of 7.7 and the particle size of the binder phase of 120 nm. Uchidoi teaches in a cathodic electrocoating composition having a binder of an epoxy-amine adduct that the composition has an electroconductivity from 1000 to 2500 microsiemens/cm (see abstract). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Antonelli as shown by Harris and/or Uchidoi because it has been settled that proper adjustment of a known effective variable of a known or obvious process is within the capabilities of one having ordinary skill in the art. *In re Aller* 105 USPQ 233; *In re Boesch* 205 USPQ 215. The optimization is also applied to claim 7 since the thickness of the electrodeposited coating is a function of the voltage, time and distance between the electrodes.

As to the subject matter of claim 4, Antonelli discloses that the composition usually contains a pigment with the ration of pigment to binder (col. 4, lines 13-15 and lines 30-34). Harris teaches the pigment in the composition between 0 to 35 wt% (col. 7, lines

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49-51). Uchidoi teaches the composition contains pigment or no pigment (col. 7, lines 26-32). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the references' teachings because the selection of providing pigment or no pigment in the composition would have been within the level of ordinary skill in the art.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Antonelli '894 as modified by Harris '432 and/or Uchidoi '324 as applied to claims 1-6 and 8-11 above, and further in view of Kerr '531. Antonelli discloses in Table I the operating voltage. Kerr as applied above shows the use of a voltage as low as one volt for the electrodeposition of the composition (col. 12, lines 52-57). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the references' teachings as shown in Kerr because the selection of a voltage for the electrodeposition would have been within the level of ordinary skill in the art.


### *Conclusion*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kishor Mayekar whose telephone number is (571) 272-1339. The examiner can normally be reached on Monday-Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Kishor Mayekar  
Primary Examiner  
Art Unit 1753